

What is claimed is:

1. A method for recognizing mobile signals in a wireless code division multiple access system, comprising:

measuring a moving speed of a transmitting end;

measuring a signal-to-noise ratio of a signal from the transmitting end;

and

controlling a signal searching process of a receiving end according to the measured moving speed and the signal-to-noise ratio.

2. The method of claim 1, wherein the transmitting end is user equipment and the receiving end is a base station.

3. The method of claim 1, wherein a Doppler estimator measures the moving speed.

4. The method of claim 1, wherein a signal to interference ratio estimator measures the signal-to-noise ratio.

5. The method of claim 1, wherein the controlling step includes:
giving a weight to a non-coherent accumulator when the moving speed is higher than a reference level.

6. The method of claim 1, wherein the controlling step includes:
giving a weight to a coherent accumulator when the moving speed is lower than a reference level.

7. The method of claim 1, wherein the controlling step includes:
restricting a weight intended to be given to a non-coherent accumulator when the signal-to-noise ratio is lower than a reference level.

8. A method for recognizing signals in a CDMA mobile communication system, comprising:

despread ing received channel signals, and accumulating the despread signals according to coherent multi-slot accumulation, respectively;

squaring each of the accumulated signals, and adding up the signals to an energy value;

accumulating the energy value according to non-coherent multi-slot accumulation;

determining a moving speed of a signal from the transmitting end from which said received channel signals are derived;

determining a signal-to-noise ratio of the signal from the transmitting end; and

controlling a signal searching process of a receiving end according to the moving speed and the signal-to-noise ratio.

9. The method of claim 8, wherein the transmitting end is a user equipment, and the receiving end is a multi-path searcher of a base station modem.
10. The method of claim 8, wherein the received channel signals are an in-phase (I) channel signal and a quadrature-phase (Q) channel signal.
11. The method of claim 8, wherein a Doppler estimator decides the moving speed of the signal from the transmitting end.
12. The method of claim 8, wherein determining the moving speed includes determining whether the moving speed of the signal from the transmitting end is a first speed or a second speed, wherein the first speed is greater than the second speed..

13. The method of claim 8, wherein a signal to interference ratio estimator determines the signal-to-noise ratio.

14. The method of claim 8, wherein the controlling step includes transmitting a control signal to the coherent and non-coherent accumulators according to the determined moving speed.

15. The method of claim 8, wherein the controlling step includes compensating for a control signal intended to be transmitted to the non-coherent accumulator according to the determined signal-to-noise ratio.

16. The method of claim 14, wherein, when the moving speed is determined to be higher than a reference level, a control signal for increasing a slot number is transmitted to the non-coherent accumulator.

17. The method of claim 14, wherein, when the decided moving speed is determined to be lower than a reference level, a control signal for increasing a slot number is transmitted to the coherent accumulator.

18. The method of claim 15, wherein, when the signal-to-noise ratio is determined to be below a predetermined value, the control signal transmitted to the non-coherent accumulator is compensated.

19. The method of claim 15, wherein the control signal increases a slot number based on the non-coherent multi-slot accumulation.

20. The method of claim 18, wherein the control signal is compensated by fixing the slot number based on the non-coherent multi-slot accumulation.

21. The method of claim 8, wherein the received channel signals include at least one pair of in-phase (I) signals and quadrature-phase (Q) signals.

22. An apparatus for recognizing mobile signals in a CDMA mobile communication system, comprising:

a despreader which despreading one or more received signals;

a scrambling code generator which generates a scrambling code for use by the despreader;

a Doppler estimator which determines a speed of the received signals transmitted by a mobile terminal, and which transmitts control information;

a signal-to-interference ratio estimator which determines a signal-to-noise ratio of the signals received from the mobile terminal, and corrects control information;

a coherent accumulator which receives the despread signals, and accumulates the signals in slot units;

a squaring circuit which squares each of the signals accumulated in the coherent accumulator;

an adder which adds size elements extracted by the squaring circuit;

a non-coherent accumulator which accumulates a signal size added by

the adder; and

a memory which stores output signals from the non-coherent accumulator.

23. The apparatus of claim 22, wherein the received signals despread by the despreader include an in-phase (I) channel signal and a quadrature-phase (Q) channel signal.

24. The apparatus of claim 22, wherein the Doppler estimator determines the speed of the signals transmitted from the mobile terminal by determining whether the speed is a first speed or a second speed, wherein the first speed is greater than the second speed.

25. The apparatus of claim 22, wherein the Doppler estimator transmits a control signal for increasing a slot number to the coherent and non-coherent accumulators according to the determined moving speed.

26. The apparatus of claim 25, wherein, when the determined moving speed of the mobile terminal is determined to be higher than a reference level, the Doppler estimator transmits the control signal for increasing the slot number to the non-coherent accumulator.

27. The apparatus of claim 25, wherein, when the moving speed of the terminal is determined to be lower than the reference level, the Doppler estimator transmits the control signal for increasing the slot number to the coherent accumulator.

28. The apparatus of claim 22, wherein the signal-to-interference ratio estimator compensates for a control signal transmitted to the non-coherent accumulator according to the determined signal-to-noise ratio.

29. The apparatus of claim 28, wherein, when the signal-to-noise ratio is determined to be below a predetermined value, the signal-to-interference ratio estimator

compensates for the control signal for controlling the slot number transmitted to the non-coherent accumulator to a fixed slot number.

30. The apparatus of claim 22, wherein the coherent accumulator comprises:

a first coherent accumulator which receives an in-phase (I) channel signal; and

a second coherent accumulator which receives a quadrature-phase (Q) channel signal.

31. The apparatus of claim 22, wherein the squaring circuit comprises:

a first squaring circuit which receives a signal from the first coherent accumulator; and

a second squaring circuit which receives a signal from the second coherent accumulator.

32. The apparatus of claim 22, wherein the squaring circuit squares each of the signals and outputs energy values.

33. The apparatus of claim 22, wherein the adder adds energy values and outputs an energy value which is a signal size in a corresponding phase.

34. The apparatus of claim 22, wherein the coherent accumulator receives the despread signals, accumulates the signals within a slot range by a corresponding pilot symbol value, and re-accumulates the signals in slot units set by the corresponding control signal from the Doppler estimator.

35. The apparatus of claim 22, wherein the non-coherent accumulator accumulates the signal sizes in the phase added by the adder, and re-accumulates the signals in slot units set by a control signal input from the Doppler estimator and corrected by the signal-to-interference ratio estimator.